

COLLEGE: NJIT

DEPARTMENT: Engineering Technology; Computer Technology

MIT 460 Economics of Aging

Professor: William Eisenmann

Email and Availability: wve3@njit.edu – 7 AM to 11 PM

Office Hours - 3 PM to 6 PM

Class Location: GITC 2400

Brief description of Course:

This course will investigate the micro-economic challenges an aging individual face dealing with fixed incomes in an environment of exploding health and housing costs and the larger effects on population aging on the global economy. It will also address Macroeconomic and political stresses on governments necessitated by demographics where fewer workers are paying for a growing older population. The impacts of technology and longer life spans will necessitate professionals to create new and innovative engineering and AI solutions and economic factors that will drive systems development. Included are computer simulations focused on modelling these economic forces.

Why is this course needed?

Medical Informatics Technology and Geriatrics Engineering Technology minor graduates will need to be well versed in economic factors facing an aging population. Economic factors often are the determining factor if individuals and governments invest in their aging populations. Overall costs can be significantly reduced by proactively providing at-home-systems.

Students will need to understand forces facing an aging global population and its economic implications. Nations will have to make many changes or face slower economic growth and increased social costs to deal with aging populations. A phenomenon deeply troubling economists and policymakers is the aging global population.

A rapidly aging population means there are fewer working-age people in the economy. An economy that cannot fill in-demand occupations faces adverse consequences, including declining productivity, higher labor costs, delayed business expansion and reduced international competitiveness. All these factors need to be understood by our graduates to be successful in their respective fields.

How do the learning outcomes relate to program goals?

Since the Medical Informatics/Geriatric Engineering Technology graduates will design intelligent living environments and help legislators decide on the priorities related to funding of government initiatives, these graduates need to be well versed in the economics of aging

For whom is it intended? What other students might elect it?

Needed by Computer Technology/ Medical Informatics/Geriatric Engineering Students

Information Technology and Computer Science students also need to understand these forces affecting our population and how to respond using computer simulation tools to investigate possible outcomes and solutions.

Course Details:

Brief Outline

a list of all topics that must be taught

Week 1: Introduction

Week 2: The Demography of Aging

Week 3: Macroeconomics of aging: Impact of Governmental Policies and Procedures

Week 4: Aging, Values, Attitudes, and Ethics

Week 5: The Phenomenon of Aging

Week 6: Diversity affecting the aging process

Week 7: Legal and Financial Impact on the Aging adult

Week 8: Normal Changes of Aging

Week 9: Microeconomic of aging: Retirement Planning: Advantages and disadvantages

Week 10 Economics of Telehealth:

Week 11: Simulation Software for economic projections: Reconstructing aging:

Week 12: Healthcare Reform Part 1: Economics of Medicare and Social Security

Week 13: Healthcare reform Part 11: Theories of changing funding of Healthcare

Week 14: Work on final project: Telehealth,

Week 15: Final Week

learning outcomes

- Define Macroeconomics
- Explore and discuss the effects of economics
- Discuss the impact of ageing process and its relationship with health care, social, and economics changes
- Discuss the facts and statistics that are associated with the aging population.
- Discuss the influences of government policies and procedures that affects the aging population
- Discuss growth and diversity ageing process
- Discuss Medicare and Medicaid options
- Discuss the different types of private pay
- Discuss veteran's Benefits and Long-Term Care Insurance
- Explore and discuss payment options for Older Adults Without financial resources for Healthcare
- Discuss the history of retirement
- Explore the Importance in understanding the retirement phase
- Effects of career choices on retirement planning
- Financial planning for retirement (Four-Legged Stool analogy)
- Impact of retirement on roles and relationships

Detailed Outline

WEEK 1:

Introduction Week

- Review Course syllabus and assignments
- Define the Macroeconomics
- Explore and discuss the effects of economics
- Discuss the impact of ageing process and its relationship with health care, social, and economics changes

WEEK 2

The Demography of Aging

Student Learning Outcomes:

- Discuss the Aging facts & statistics
- Identify and discuss the demographics of aging Baby boomers
- Growth & diversity in older population

Week 3

Macroeconomics of aging: Impact of Governmental Policies and Procedures

Student Learning Outcomes:

- Discuss the facts and statistics that are associated with the aging population.
- Discuss the influences of government policies and procedures that affects the aging population
- Discuss growth and diversity ageing process

Week 4

Aging, Values, Attitudes, and Ethics

Student Learning Outcomes:

- Discuss Moral, ethical issues of aging
- Identify and discuss values, attitudes, and the implications of ageism

WEEK 5:

The Phenomenon of Aging

Student Learning Outcomes:

- Chronological age, psychological age, sociological age, functional age
- Optimal aging, normal aging, pathological aging and successful aging

Week 6

Diversity affecting the aging process

Student Learning Outcomes:

- Discuss the facts associated with phenomenon of the aging process
- Discuss the influences, impact and experiences on the older adults.
- Explain and discuss growth and diversity ageing process

WEEK 7:

Legal and Financial Impact on the Aging adult

Student Learning Outcomes:

- Discuss Medicare and Medicaid options
- Discuss the different types of private pay
- Discuss veteran's Benefits and Long-Term Care Insurance
- Explore and discuss payment options for Older Adults Without financial resources for Healthcare

Week 8

Normal Changes of Aging

Student Learning Outcomes:

- Identify and discuss Wellness, Health Promotion, and Health Education
- Discuss Medication Management
- Mid -Term Assignment: 10-page paper topic TBA

Week 9

Microeconomic of aging: Retirement Planning: Advantages and disadvantages

Student Learning Outcomes

- Discuss the history of retirement
- Explore the Importance in understanding the retirement phase
- Effects of career choices on retirement planning
- Financial planning for retirement (Four-Legged Stool analogy)
- Impact of retirement on roles and relationships

Week 10

Telehealth:

Student Learning Outcomes

- Definition of Telehealth
- Review HIPPA laws
- Explore discuss telehealth and patient access to digital data
- Protect confidential in delivery of digital data

Week 11

Simulation Software for economic projections: Reconstructing aging:

Students Learning Outcomes

- Review economy concepts of aging
- Explore and discuss the advantages and disadvantages in preparation for old age

Week 12

Healthcare Reform Part 1

Student Learning Outcomes

- Explore and discuss mitigate fiscal pressures of healthcare from aging.
- Advantages and disadvantages affecting the individuals in the retirement phase

Week 13

Healthcare reform Part 11

Student Learning Outcomes

- Growth of healthcare spending while ensuring adequate delivery

- Increasing cost of healthcare on the aging population
- Will improving technology reduced the health cost

Week 14

Work on final project:

- Telehealth and future impacts in a digital medical records age

Week 15

Final Examination Week: Last week for assignments

REQUIRED TEXTBOOKS:

• **Economics and Ageing: Volume I: Theory Paperback – December 12, 2018**

by [José Luis Iparraguirre](#)

[Links to an external site.](#) (Author) ISBN-13: 978-3319932477 “provides a coherent introduction to the economic implications of individual and population ageing”

- Caring for Older Adults holistically 5th edition, Mary Ann Anderson, PHD, APRN, BC: Fellow, National Gerontological Nursing Association, Philadelphia, PA., F. A. DAVIS.
- Supplementary Materials: Include all the materials posted under “Course Documents” on Blackboard. These materials are supplements to the textbook and provide additional resources and researched on gerontological issues.
-

RECOMMENDED READING:

- There are several great resources on the web for project ideas:
- "Universal Design: A Step toward Successful Aging:" <http://www.hindawi.com/journals/jar/2013/324624/>
- "HCI and the older population": <http://www.hindawi.com/journals/jar/2013/324624/>
- [Links to an external site.](#)

Proposed grading scheme, showing probable percentages and rubrics

30% hw

35% Discussions

35 Exams/Project (quizzed, midterm, final)

Statement on academic integrity:

“Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: <http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf>. Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu”